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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,531	06/29/2001	James C. Dunphy	CDST-S099.CIP	1982

7590 07/17/2003
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EXAMINER

NINO, ADOLFO

ART UNIT PAPER NUMBER

2831

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,531

Applicant(s)

DUNPHY ET AL.

Examiner

Adolfo Nino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-11 and 14-19 is/are allowed.
- 6) ☒ Claim(s) 1,2,12 and 13 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not include the applicants' signatures and it is not dated.

Specification

The disclosure is objected to because of the following informalities:

Page 3, line 9 (blank line not counted), "\enterlines" should be ---centerlines---.

Page 7, line 21 (blank lines not counted), "variationresulting" should be two words.

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities:

Claim 1, line 4, after "shift," insert ----and----.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "said root" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Barton et al. (US 6,403,209 B1).

Regarding claim 1, Barton et al. disclose a method of forming laterally segmented face electrodes (48, 50, 52 in fig. 2) for a flat panel display spacer (24) comprising the steps of: a) defining a length for said electrodes, wherein said length is effective for minimizing zero current shift; b) fabricating said face electrodes of said length (col. 2, lines 13-60).

Regarding claim 12, Barton et al. disclose a flat display comprising: an electroemissive plate structure (20 in fig. 1); a fluorescent plate structure (22 in fig. 1)

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separated from said electroemissive plate structure (20) by a space (fig. 1) at vacuum; spacers (24) bracing said electroemissive and said fluorescent plate structures and having a face (figs. 1, 2); and a plurality of laterally segmented face electrodes (48, 50, 52 in fig. 2; col. 9, lines 54-67) arrayed upon said face, wherein each of said electrodes is individually accessible (fig. 2).

Regarding claim 13, Barton et al. disclose the method as recited in claim 12, wherein said electrodes (48, 50, 52) may individually be subjected to electrical testing (fig. 2).

Allowable Subject Matter

Claims 6-11 and 14-19 are allowed.

Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: With respect to claim 2, the cited prior art does not disclose nor teach, alone or in combination, the limitation therein of "a3) combining said value determined in said step a1) and said value determined in said step a2) into a total zero current ^{shift} ~~set~~ value; and a4) differentiating said root summed square of said total zero current value with

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respect to length to determine the length for minimum zero current shift variation" in combination with the other claim limitations.

With respect to claim 3, the cited prior art does not disclose nor teach, alone or in combination, the limitation therein of "b2) masking said lift-off layer; b3) removing a portion of said lift-off layer not masked; b4) removing the mask; b5) depositing an electrode layer over remaining material of the lift-off layer and over uncovered material of the sheet of spacer material; and b) removing the remaining material of the lift-off layer to remove overlying material of the electrode layer" in combination with the other claim limitations.

The following is an examiner's statement of reasons for allowance:

The primary reason for the indication of the allowability of claims 6-10 is the inclusion therein of the limitation of "c) combining said first component and said second component into a total zero current shift value; d) differentiating a derivative of said value with respect to length of said electrodes; and e) defining a length for said electrodes by setting said derivative to zero and solving for length" in combination with the other claim limitations. This limitation was neither disclosed nor taught by the cited prior art, alone or in combination.

The primary reason for the indication of the allowability of claim 11 is the inclusion therein of the limitation of "c) combining said first component and said second component into a total zero current shift value; d) taking a root summed square of said value; e) differentiating a derivative of said value with respect to length of said

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electrodes; and f) defining a length for said electrodes, wherein said length is a length at which said derivative is zero" in combination with the other claim limitations. This limitation was neither disclosed nor taught by the cited prior art, alone or in combination.

The primary reason for the indication of the allowability of claims 14-19 is the inclusion therein of the limitation of a method comprising the steps of forming a face electrode "(c) of a length effective to minimize zero current shift, the forming step comprising: depositing an electrode layer over a sheet of spacer material; and selectively removing part of the electrode layer to largely form the electrode segments from the remainder of the electrode material" in combination with the other claim limitations. This limitation was neither disclosed nor taught by the cited prior art, alone or in combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Spindt et al. (US 6,406,346 B1; US 6,107,731) disclose a fabrication of flat-panel display. Sasaguri (US 6,583,553 B2) discloses an electron emitting apparatus. Takenaka et al. (US 6,583,549 B2) disclose a spacer assembly. Miyazaki (US 6,566,794 B1) discloses an image forming apparatus. Ando (US

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6,541,900 B1) discloses a vacuum envelope. Fushimi et al. (US 6,541,905 B1) disclose an image forming apparatus. Dunphy et al. (US 6,512,335 B1) disclose cathode burn-in procedures.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adolfo Nino whose telephone number is (703) 305-1071. The examiner can normally be reached on M-F (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A Reichard can be reached on (703) 308-3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

AN
July 9, 2003


DEAN A. REICHARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800